

Lefschetz properties for Artinian Gorenstein algebras presented by quadrics

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We introduce a family of Artinian Gorenstein algebras, whose combinatorial structure characterizes the ones presented by quadrics. Under certain hypotheses these algebras have Hilbert vector non-unimodal. In particular we provide families of counterexamples to the conjecture that Artinian Gorenstein algebras presented by quadrics should satisfy the weak Lefschetz property.